

Title (en)  
Device for reducing water hardness

Title (de)  
Vorrichtung zum Reduzieren von Wasserhärte

Title (fr)  
Dispositif pour réduire la dureté de l'eau

Publication  
**EP 1048776 A2 20001102 (EN)**

Application  
**EP 00106621 A 20000328**

Priority  
IT TO990248 A 19990330

Abstract (en)  
A device for reducing water hardness (softener) suitable for the use in a household washing machine, in particular a dishwasher, comprising a container (1) within which ionic exchange resins are housed, which provide to reduce the hardness degree of the water lapping them and means for regenerating the softening efficiency of said resins, characterized in that: at least a portion of said resins (19) are contained in a delimited space (9), a wall of said space (9) comprises a movable or elastic element (15), means are provided (17,18;20) for detecting the movement of said movable or elastic element (15). <IMAGE>

IPC 1-7  
**D06F 39/00**

IPC 8 full level  
**A47L 15/42** (2006.01); **D06F 39/00** (2006.01)

CPC (source: EP US)  
**A47L 15/4231** (2013.01 - EP US); **C02F 1/42** (2013.01 - EP US); **D06F 39/007** (2013.01 - EP US); **C02F 2303/16** (2013.01 - EP US)

Cited by  
EP3838848A1; EP2402290A1; EP1228735A3; FR2835824A1; US7988790B2; US8365438B2; WO2006101360A1; WO2004101443A1; WO2007145432A1; US8480873B2; US8815067B2; JP2012011377A

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**EP 1048776 A2 20001102; EP 1048776 A3 20010418; EP 1048776 B1 20060517**; AT E326568 T1 20060615; DE 60027954 D1 20060622; DE 60027954 T2 20070426; ES 2263410 T3 20061216; IT 1307228 B1 20011030; IT TO990248 A1 20000930; TR 200000878 A2 20001121; TR 200000878 A3 20001121; US 6436293 B1 20020820

DOCDB simple family (application)  
**EP 00106621 A 20000328**; AT 00106621 T 20000328; DE 60027954 T 20000328; ES 00106621 T 20000328; IT TO990248 A 19990330; TR 200000878 A 20000330; US 53701100 A 20000328